

REMARKS

Summary

Claims 1-6 are pending.

Figures

Figure 6 has been revised to indicate in the flowchart, the directional flow in S8 for Yes (Y) and No (N). Support for this change may be found in the paragraph beginning on p. 19, line 18 and ending on p. 20, line 19, for example.

Rejection of Claims

Claims 1-6 were rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe (U.S. Patent 6,285,347). Applicant traverses the rejections.

Claim 1 recites that the image information display apparatus comprises, inter alia, a display unit that displays image data, an input unit that scrolls the image data displayed on the display unit, and a control unit that controls the display unit and the input unit. The input unit, in turn, has, a manipulation unit manipulated by an operator, a position sensor that detects a manipulation state of the manipulation unit, and an actuator that supplies force-feedback to the manipulation unit. In the course of scrolling image data, the control unit calculates the deviation between a direction from a reference point in the display unit to a prescribed point in the image data and a direction of manipulation of the manipulation unit, and controls drive of the actuator to decrease the force-feedback to be supplied to the manipulation unit with a decrease in the calculated deviation.

Watanabe does not anticipate or suggest such an arrangement. More specifically, Watanabe does not teach, for example, an actuator.

The Examiner states that although Watanabe "does not explicitly disclose ... an actuator ... Watanabe implicitly teaches or at least suggests the claim limitation because Watanabe discloses supplying feedback information after manipulation of the mouse or finger on the touch pad on the pointer to indicate the scrolling speed and direction of the digital map when the distance between the start point to an end point relating to the desired direction from the start point to the end point is determined and the speed of the displayed portion of the digital map with regards to

the direction of the arrow portion of the pointer is made small when the distance is small”.

However, Watanabe is directed to a method of scrolling a screen in which an amount by which the pointer positioned at the displayed portion is shifted corresponds to a scrolling speed of the displayed portion of the digital map within the display screen (see, e.g., summary of the invention). This is, in fact, what the Examiner has recognized: information is provided to the CPU regarding speed and direction of movement from the input is used to modify display of the pointer in the screen. Such a method has nothing to do with either providing feedback of any type to a manipulation unit, more specifically providing force feedback to an operator using an actuator.

Unlike the arrangement of Claim 1, in which an actuator supplies force-feedback to a manipulation unit, Watanabe teaches a manipulation unit in which no feedback is provided. That is to say, the manipulation unit in Watanabe merely serves to provide information to the CPU, which then produces an image on the screen. The mere fact that information is passed from one place to another does not constitute feedback. Feedback, as in one definition (c.f. Merriam-Webster's Collegiate Dictionary) is “the return to the input of a part of the output of a machine, system, or process.” This is to say that, in this non-exclusive definition, the information from a manipulation unit affects a manipulation unit in some way, electrically, mechanically, or otherwise. Watanabe does not teach feedback of any sort to the manipulation unit, let alone force feedback. Instead, the information in Watanabe is merely passed to the display, where the result of the manipulation is displayed. This point, of course, is emphasized by the fact that nowhere in Watanabe is the word “feedback” even mentioned.

The Examiner continues by stating that Watanabe discloses an actuator in the form of the capacitor sensors. This is entirely incorrect. A sensor, be it capacitive or otherwise, is a sensor – it senses a physical impulse. On the other hand, an actuator is a device that provides mechanical action or motion (c.f. Merriam-Webster's Collegiate Dictionary). Nowhere does Watanabe indicate the sensor (touch pad) provides mechanical action or motion to the mouse (manipulation unit) or that any mechanical action or motion is provided to the mouse based on the sensor input. The passage that the Examiner indicates (col. 6, lines 29-44) indicates that

the display changes according to the information from the sensor, which has nothing to do with the provision of force.

For corresponding reasons, as Watanabe does not anticipate or suggest application of force, let alone control of the force using feedback. More particularly, Watanabe does not “implicitly teach or suggest” that in the course of scrolling image data, the control unit calculates the deviation between a direction from a reference point in the display unit to a prescribed point in the image data and a direction of manipulation of the manipulation unit, and controls drive of the actuator to decrease the force-feedback to be supplied to the manipulation unit with a decrease in the calculated deviation, as recited in Claim 1. Although the Examiner makes this assertion based on the fact that the length of the on-screen directional arrow changes based on information from the touch pad and sensor, Watanabe teaches nothing, implicitly or otherwise, regarding controlling drive of an actuator, or in particular, the interrelationship between the calculated deviation and the actuator drive.

In summary, Watanabe does not anticipate or suggest feedback or, more specifically, providing force feedback to an operator using an actuator. Moreover, Watanabe does not anticipate or suggest the specific relationship between calculations and actuator drive. To suggest any of these constitutes improper use of hindsight and, as such, uses the Applicant's own teachings to bootstrap the rejection. “Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor.” *Para-Ordnance Mfg. v. SGS Importers Int'l*, 73 F.3d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995)(citing *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1551, 1553, 220 USPQ 303, 311, 312-13(Fed. Cir. 1983)). “The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.”

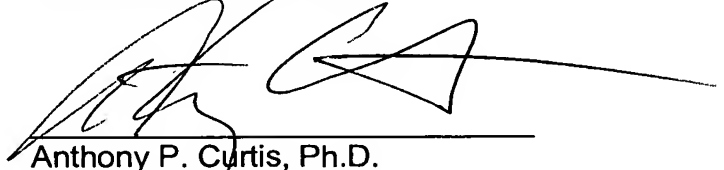
Accordingly, for at least these reasons, Claim 1 is patentable over Watanabe.

Claims 2-6 are claims dependent on allowable Claim 1, and are allowable, without more. As these claims are allowable as dependent claims, there is no requirement for a detailed traverse to be provided in order that the response to the Office action be complete.

Conclusion

In view of the above, Applicant respectfully submits that all of the pending claims are in condition for allowance and seeks an allowance thereof. If for any reason the Examiner is unable to allow the application in the next Office Action and believes that a telephone interview would be helpful to resolve any remaining issues, he is respectfully requested to contact the undersigned attorney or agent.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'AP Curtis', is written over a horizontal line.

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Amendments to the Drawings are as follows:

The attached sheets of drawings include changes to Fig. 6. In Fig. 6, a typographical error is corrected. Applicant respectfully requests that Fig. 6 be replaced with the corrected Fig. 6 enclosed herewith. The corrections to Fig. 6 have been marked in red. Applicant respectfully requests that the Examiner approve the correction. Applicant will submit corrected formal drawings upon receiving a Notice of Allowance.